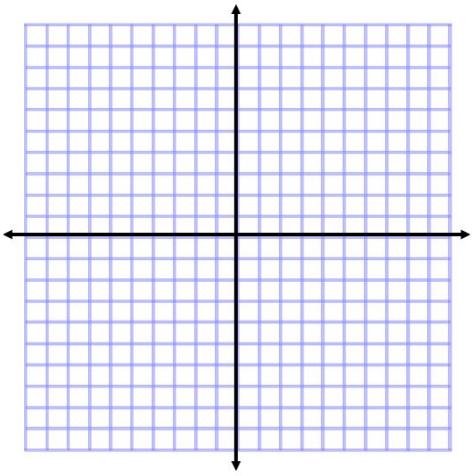
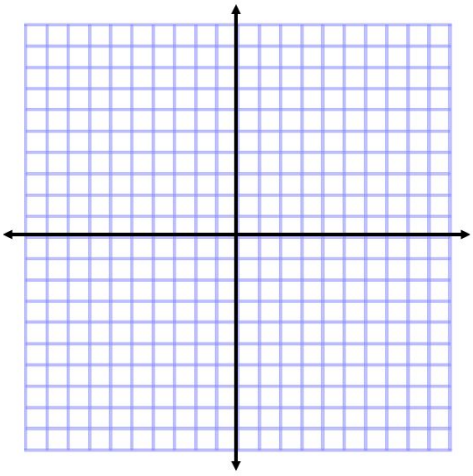
Name: _____ **Date:** _____

Solving Quadratic Equations: Mixed

Part One: Solve each quadratic equation by SKETCHING the graph of the related function.
Note: You may need to ISOLATE ZERO first.

1. $x^2 + 8 = 8$  Related QF: _____ solution(s): _____	2. $-x^2 - 1 = 0$  Related QF: _____ solution(s): _____

Part Two: Solve each equation via the square roots method:

3. $x^2 = 36$	4. $a^2 + 8 = 89$	5. $z^2 = -25$
6. $3g^2 = 12$	7. $x^2 + 11 = -38$	8. $16w^2 = 81$

Part Three: Solving via Factoring: Solve each quadratic equation via factoring. The first two have been factored for you.

9. $(x + 4)(2x - 9) = 0$	10. $(7x + 2)(5x + 4) = 0$
11. $b^2 + 3b - 4 = 0$	12. $m^2 - 5m - 14 = 0$
13. $n^2 + n - 12 = 0$	14. $k^2 - 3k - 10 = 0$
15. Note: You must isolate zero first. $t^2 - 3t = 28$	16. $3q^2 + 16q = -5$
17. $x^2 + 55 = 16x$	18. $12 = 2x^2 + 5x$

CHALLenge: Solve: $15y^2 + 45y - 9 = 4y - 5y^2$